

## EFFECT OF PHOSPHORUS, ZINC AND IRON ON GROWTH ATTRIBUTES AND YIELD ATTRIBUTES OF WHEAT IN LOAMY SAND SOILS OF WESTERN RAJASTHAN

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**Abstract:** A field experiment was carried out during two consecutive *rabi* seasons of 2009-10 and 2010-11 at the Agronomy farm, College of Agriculture, Swami Keshwanad Rajasthan Agricultural University, Bikaner to find out the effect of phosphorus, zinc and iron on growth attributes and yield attributes of wheat (*Triticum aestivum* L.) in Loamy sand soils of Western Rajasthan with ten treatments comprising 4 levels of phosphorus (0, 20, 40 and 60 kg ha<sup>-1</sup>) and zinc (0, 3 and 6 kg ha<sup>-1</sup>) in main plots and 3 levels of iron (0, 3 and 6 kg ha<sup>-1</sup>) in split-plot design with three replications. Application of phosphorus up to 40 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> significantly increased the dry matter production, CGR and RGR of wheat over control at 30, 60, 90 DAS and at harvest in pooled analysis. Yield attributes viz. effective tillers plant<sup>-1</sup> and number of grains ear<sup>-1</sup> were also significantly enhanced with the increasing level of phosphorus up to 40 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> in pooled analysis. Application of phosphorus up to 40 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> significantly increased the grain, straw and biological yields beyond which it increased non-significantly and registered a mean increase of 26.2, 30.6 and 28.8 per cent, respectively over control.

**Keywords:** Phosphorus, Zinc, Iron, Growth attributes, Yield attributes, Wheat

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